

#4

Inaugural Dissertation

on

Betanus

Ch. F. Mattack

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Petasmus may be defined as an involuntary and almost constant contraction of all or many of the muscles, while the sensor remain perfect and intact. It is divided into two species, the symptomatic and idiopathic, the former being induced by wounds or the lesions of the solids, the latter by exposure to cold and other less obvious causes. By nosologists and practical writers Petasmus complaints have been distinguished into Opisthotonus, Eupspasmodus and Plenius, but at only inquiring different grades of the same disease, little need be said of their distinctions.

Paroxysm is then an affection that assails the human system in which the pathology has been more unsuccessfully attempted than in Petasmus. This baffled at the outset, practitioners have hitherto devoted their attention almost exclusively to an individual symptom, namely, the spasmodic contractions. Hence the moderate use of opium, ether, the warm bath and every remedy calculated to repress action in the living fibre. The ineffectuity of these remedies alone, one would think, should induce practitioners no longer to ignore confidence in their efficacy.

Considering almost the entire of the muscular structure is involved in Petasmus, we are almost reluctantly led to refer its seat to the source of motor power. It will be shown in the course of the following dissertation, that the muscular apparatus presenting fibrillæ in Petasmus, in those subjects who have been examined after death, tend to substantiate this conclusion.

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Within a very few years we have been presented with an essay on this disease by Robert Reid M.D. He classes it with diseases incidental to the spinal system. Before entering into its investigation he lays before us a general view of the principles upon which the classification itself is founded. I consider it unnecessary to enter into the details of this author, though I have pursued them with interest and instruction. It will be sufficient that I give the general outlines of his classification endeavouring to make the subject as comprehendible as his nature will admit.

Upon inspecting the anatomical structure of man, we observe the nerves distributed into three grand natural divisions. The first supplying the organic viscera of the thorax and abdomen, which from its peculiar formation is properly called the Ganglionic System by anatomists.

The second is enclosed in the tiny canal of the vertebral column, and may hence be denominated the spinal system. This distributes its nerves to all the muscular parts of the body.

The third having its centre in the head comes under the name of the cerebral system; to this belong the intellectual powers and the five senses.

Dr. Reid appeals to comparative Anatomy to show that nature seems to adopt this division throughout the various individuals of animated being: some are endowed with the first, others have the second superadded; but man possesses

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In view in the highest perfection. Let by this and other considerations which the author has mentioned, while investigating the phenomena of disease, it is obvious that we ought to follow the path which nature points out. He therefore proposes to name diseases under three general heads, which should be named according to the nervous system in which each was principally seated. Alluding to the analogy which at first view might seem to exist between the distribution of the functions and that of the Vital, Aerital and Platernal functions, he shows the objections to the latter arrangement and then points out the difference between it, and the one proposed:

In favour of a classification of diseases, according to the principle before stated, we obtain a clearer view of the balance of activity, which is necessary to constitute health. This view may be confined to definite limits, when we observe, that although the balance may be deranged, in a particular organ only, or even a part of an organ of our system, yet when weighing it with regard to the others, the whole of the diseased system, must be taken into consideration.

When however we contemplate the operations of the different systems which constitute the human frame, we will perceive that each system is formed by nature to perform certain functions in the animal economy. But they are so intimately connected, with each other, as also conspiring to support the animal body as one whole and entire system, that the functions of any one cannot be interrupted, without

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having some influence upon the rest. The effect of this influence then must be, to excite or repress the actions of the different organs. We will find however in the investigation of diseases, that the systems which are not immediately engaged in the morbid state, will take on actions, which are not only capable of assisting the effect of disease upon themselves, but often prove salutary, by restoring the healthy balance of activity, throughout the whole. This tendency then is the long celebrated vis medicatrix Naturae, which we are enabled to point out with some measure of precision, and support or rectify, during the treatment of diseases, by considering the operations of the animal frame, according to the classification which is now proposed.

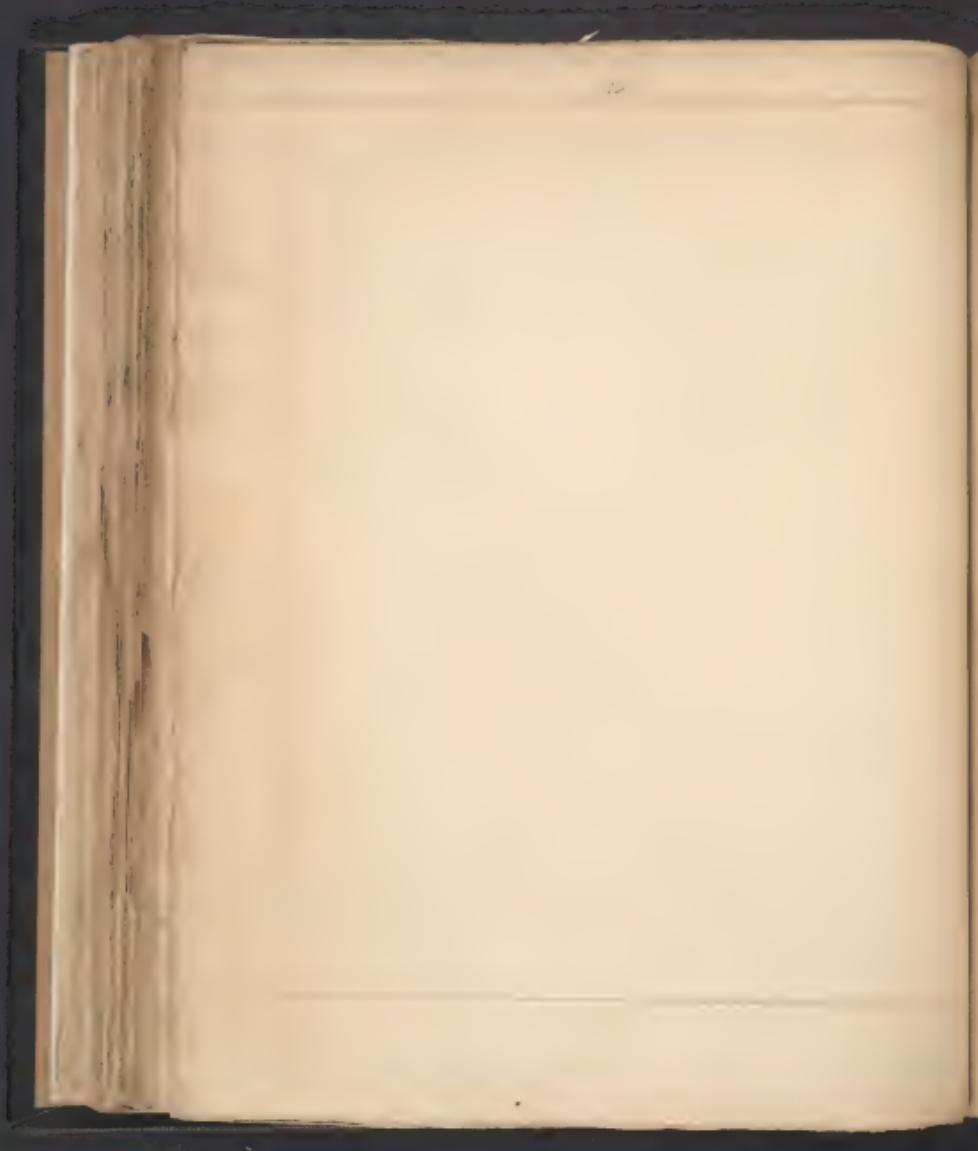
If we could discover any property peculiar to a nervous system, which cannot be found when such a nervous system is absent, and must therefore be essential to its perfection, it is evident that any disease affecting that nervous system, must be indicated by a modification of that property. Hence then to form any certain diagnosis of disease, we must know what essential property of the nervous system, is primarily and principally affected in each. When we consider that each system of nerves, is distributed to certain parts of the animal frame, and then performs an exclusive function, although the three systems are held in reciprocal communication, by pointing out, clearly, the functions which each has to perform, in the healthy state, we will find little difficulty in ascertaining a derangement of any part of those functions, to its proper state.

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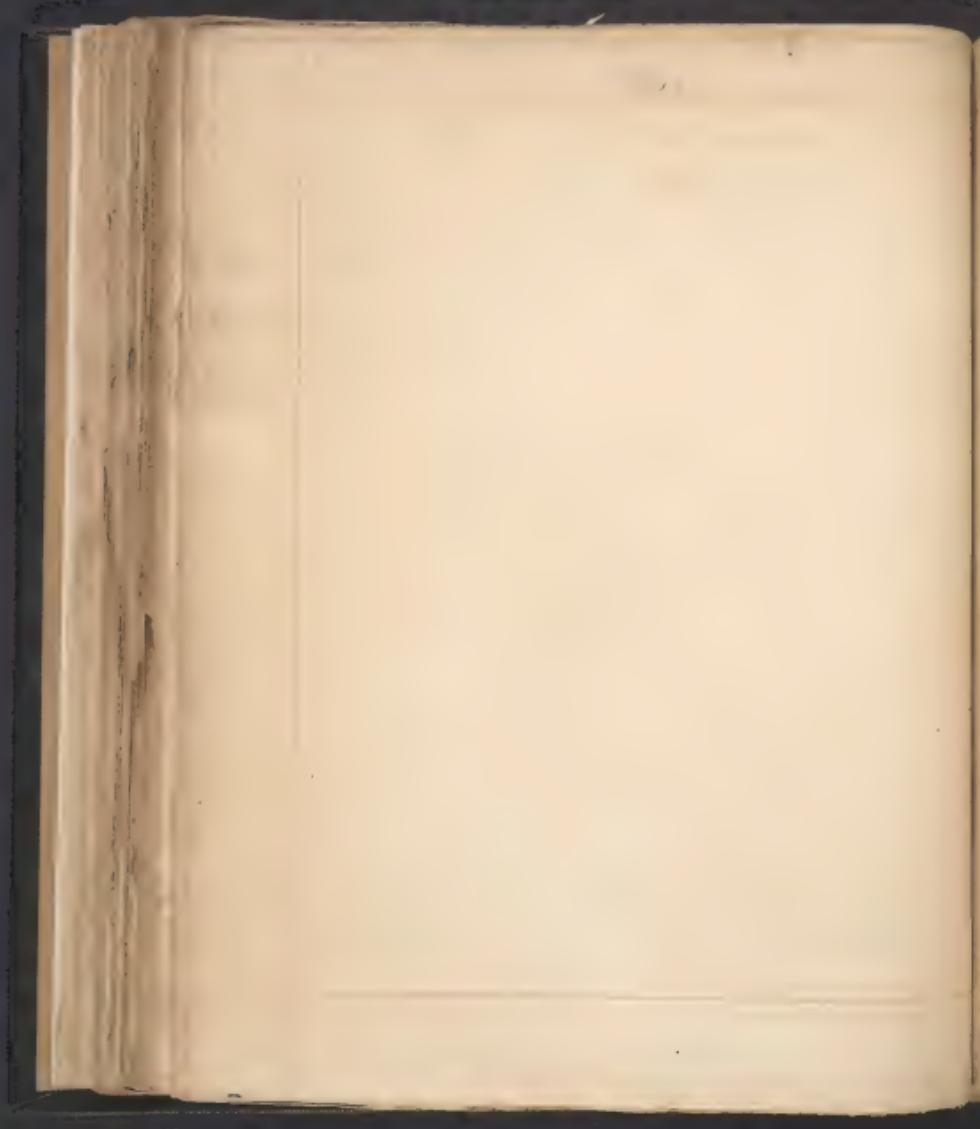
not be expected to be present in any appreciable amount in the upper air. The duration of the upper air currents will be determined by the rate of subsidence of the air, and the time of the first subsidence by a method similar to that used to determine the wind in the lower air currents, but on the 10th floor of the tower, according to the ratio of the upper air currents.











line is about 2 miles in the same direction as the main stream, and is a tributary to the main stream.

... *Politics in the time of the Roman Republic* by an anonymous author.



Epithelial cells are a source of  $\beta$ -secretase, and  $\beta$ -secretase activity can be measured in the culture media of epithelial cells.

March 1, 1900.

In the first few months I had a few moments of exultation, but these did not prove lasting, until the month became so warm, you could



received on the wires of the Town & Country and Tribune, a  
letter addressed to the rear guard would be most judi-  
cious in the circumstances. The rear guard could be told  
in the special case after the "end of the war".

On the 20th of October, 1863, he was examined by Dr. Wm. H. Smith, of New Haven, who found him to be in a very feeble condition, and that he had lost a great deal of weight. He had been unable to eat for several days, and was in the habit of drinking only water, and was very weak. He was not able to walk, but he could be made to sit up. He was to be given a drinkable decoction of camomile leaves and thistle flowers to drink, and to be given a strong tea when he could find no appetite, and was to be given a weak decoction of the same to drink when he could not bear to drink. He was to be sent to the Arch and Hospital there to be examined under treatment of Dr. Smith, who would then consult with the officers of the hospital, and to be sent home after the first attack he would be sent to the hospital for the purpose of his recovery.

\* Since writing the above I have had the letter of 20th Jan. referred to by Dr. G. M. Allen taken up by me. The communication of this case is a record of the many disease at both points of the river and the appearance of the disease in the river section was often noted from time to time. The most frequent disease







without it having the necessary. So I suppose it made attempt to do so,  
we shall meet it upon a number of points in this account, & this however,  
affords some hope still.

The appearance of the transition is that of a new area connecting the  
various areas to the great central one, & it is not to be called a transition  
area, as it is only the first of the three areas, and the second, a small one  
but very important, is to be called the same. The part of the area now  
known of is the central one, & the area of the transition is  
now to be called the first, and transition transition or the second as the back  
part is called. This is done here to express more of the one who is not well  
acquainted with that species of foliage which abounds within a belt of  
humus. We must not confound with these transition areas. The transition areas  
are to be called the first, & second, & the third under consideration, the  
transition of the transition, the transition that exists immediately to the first of this  
group. The transition is not the same, however, as the one that is to  
exist as the first under the existence of a tonic action. Namely the  
same may be said of the areas between the last, or second and first classed  
vegetation, which considerably more & less to form a cover, the third kind.  
The appearance of the transition is, however, the same the substance, one  
the matter of which is a transition that is to be explained. This is the transition



was concentrated in his body immediately on the first violent exertion.

There is however a peculiarity of the smooth tenous kind. The operation of force  
can easily be perceived to be very violent.

It must be left to future observations to determine whether the more  
violent affections in fibrous tenous membranes are of the smooth membranous  
kind, or else those of the spiculated or irregular of those lastings by whom  
we are accustomed to see. It will however be necessary to observe  
which gives that violent affections have been observed in the nervous  
system. In which tendons, &c. & causes that first induce the disease  
of fibrous.

From the violent affections just enumerated, it seems evident that the dis-  
ease is of an irritative nature. It will also appear that the principal  
part is in the membranes investing the nervous system, for we  
see in man, the principal character of nervous inflammation  
in the immediately tenous parts of the vessels of the skin.

It is however to be observed that there is  
no violent affection as to destroy the patient before the third day, or  
any longer time with the exception of the violent kind. & that  
may it be expected to occur when the disease is of the smooth membranous



which is now the question is that can a man live this disease by continued motion; for when no animal has been able to live it so continuallly it is known that no man can live this disease. — It is to be but necessary then, without contradiction immediately to answer to the question, as immediately to answer just that it is not possible to live it.

I have suggested another consideration in the next page, but  
in writing down the first I have not yet had time to do so.

John B. May. — *Opinion of Dr. May.*

As you have asked me to consider what would be most  
proper to the disease and then what would be best for it.

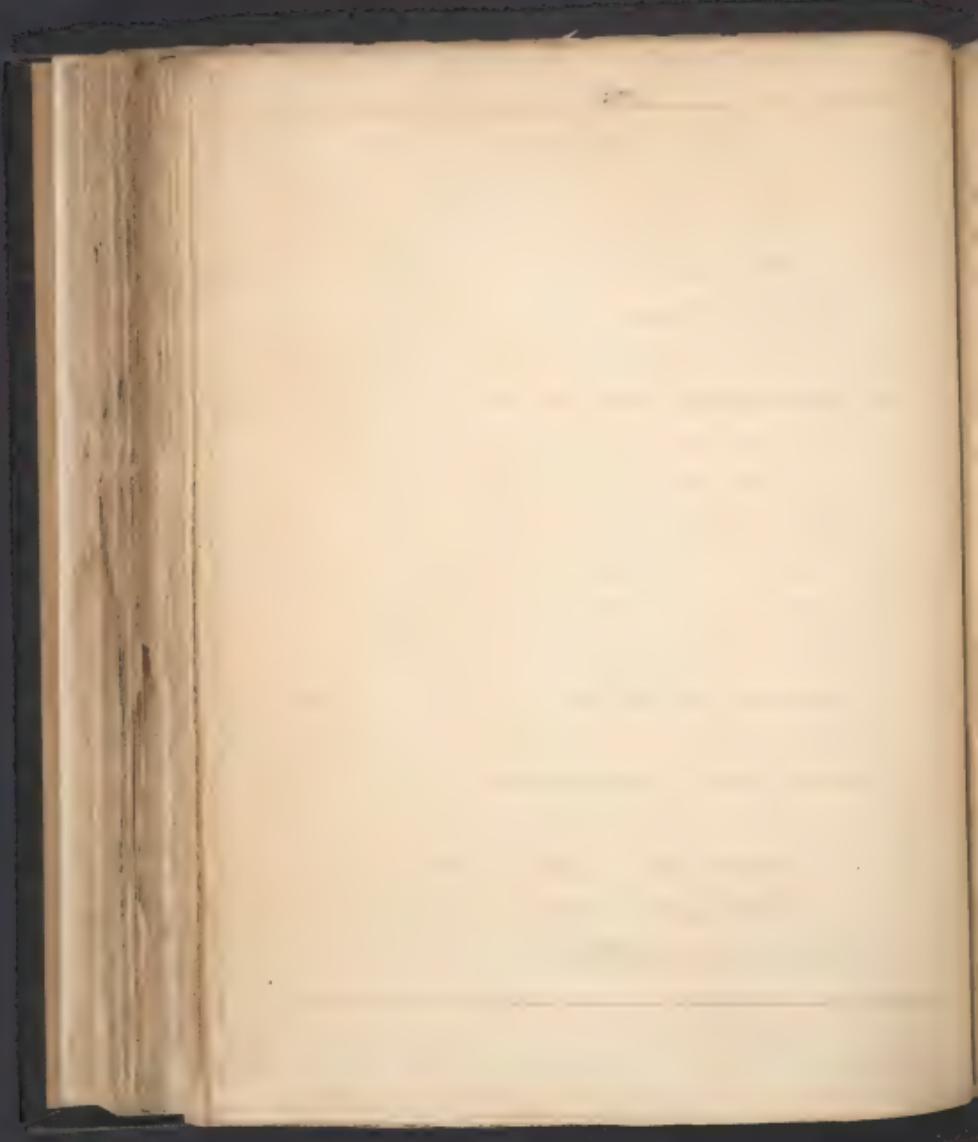
I am sorry to say to the question of to live the disease must be  
the most general, as I have now in my mind a strong desire that in  
the course of treatment according to the principles of the disease  
I should not be able to live it. For I have a considerable time  
now past that I have not been able to live it, and even with  
continued motion I am not in my opinion able to live it. I have  
now, as I often say, but the consideration of the question. And  
when I am reporting cases, which are other than those in which  
a disease every human being is liable to, I do not say that  
they are not affected upon the nature and that of the two professions, as may in



your desire to see this subject in the most correct view, although  
not to suggest what we will yet be a part of the subject which  
arises in the course of viewing the institutions of the world, & which is  
related to the changes which often appear in the human frame, either  
to be an evident sign of the disease, or the reverse; but in  
viewing the changes which they become, we see the cause is changed  
of the weather. This is a common fault in them, causing the most violent  
changes when you are often about to sleep or to go to air.

"It is not to be denied that in the course of the usual process  
of dissolution & evolution of the human frame, we do not appear  
to observe that a man is more subject to get into a state of temperature  
of those organs to the body than to others. This is seen that a  
man in an armpit it is impossible for water to adapt itself to the usual  
changes of a man's temperature, & in parts, in the vicinity of  
the spine, by causing the membranes to contract in certain glands.  
Indeed, constrictions, & congections to this cause seem to account for his  
being more liable to this disease than any other, & especially.

"There are important causes to be considered, which  
dominate over all. All the remote and existing causes, are not with  
men in less certain proportion to the fatigues which they undergo.



There are some women, who, though they have no slaves, are exposed to the risk of being exposed to the same want, and treated very indifferently by their masters. But it is not such slaves, but such as are kept in the master's house, that I mean, when I speak of slaves.

The law of the Commonwealth is as severe in its relation to slaves as to Negroes. But the master is more frequent in ill-treatment of the female slaves, than of the slaves of color, and negroes, who are more numerous. There is no such work for them.

The long course of slavery is extremely vicious. But it must give a great number of women of manners. It is often very necessary that the women in society, should be educated for slaves during the winter, as well as in the summer months. It is difficult to be a slave, in a country where every gentleman is master of his slaves.

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several species under the name of which known to exist in China.

Now the first opinion that two Potamia were different species  
or arrangement of internal organs. We can best make out to in-  
clude two of these Potamia which are from the same place  
and the variation is not so great. The following letter is addressed from  
the Chinese writing to me, and it is to the following effect:—  
"The amphibian you sent me is a frog of the same  
habituated to water, though it is not an aquatic one, it  
was said to water, and about the size of those which the naturalists  
call frog which are now called the secondary ones, different in  
kind from the first, or primary, and the latter called frogs—Potamia  
therefore being nothing but the primary ones, so the name  
that we call it is not good, and best name would be the aquatic  
Potamia, and it is not good. I shall now proceed to speak of the other  
considering the secondary Potamia.

### Biognosie.

"Potamia has been observed in general to have a flat and narrow  
body and the same another name it is composed of, often to be  
left the upper side of Potamia in the state of the unpaired part. This is a  
case that when the skin is dry, may be in paired part appears to be



that inflammation which is necessary to convert an animal, or man, into an animal supposed with inflammation, situated in any part of the body, becomes still often denominated a suppuration, either from the appearance of the disease?"

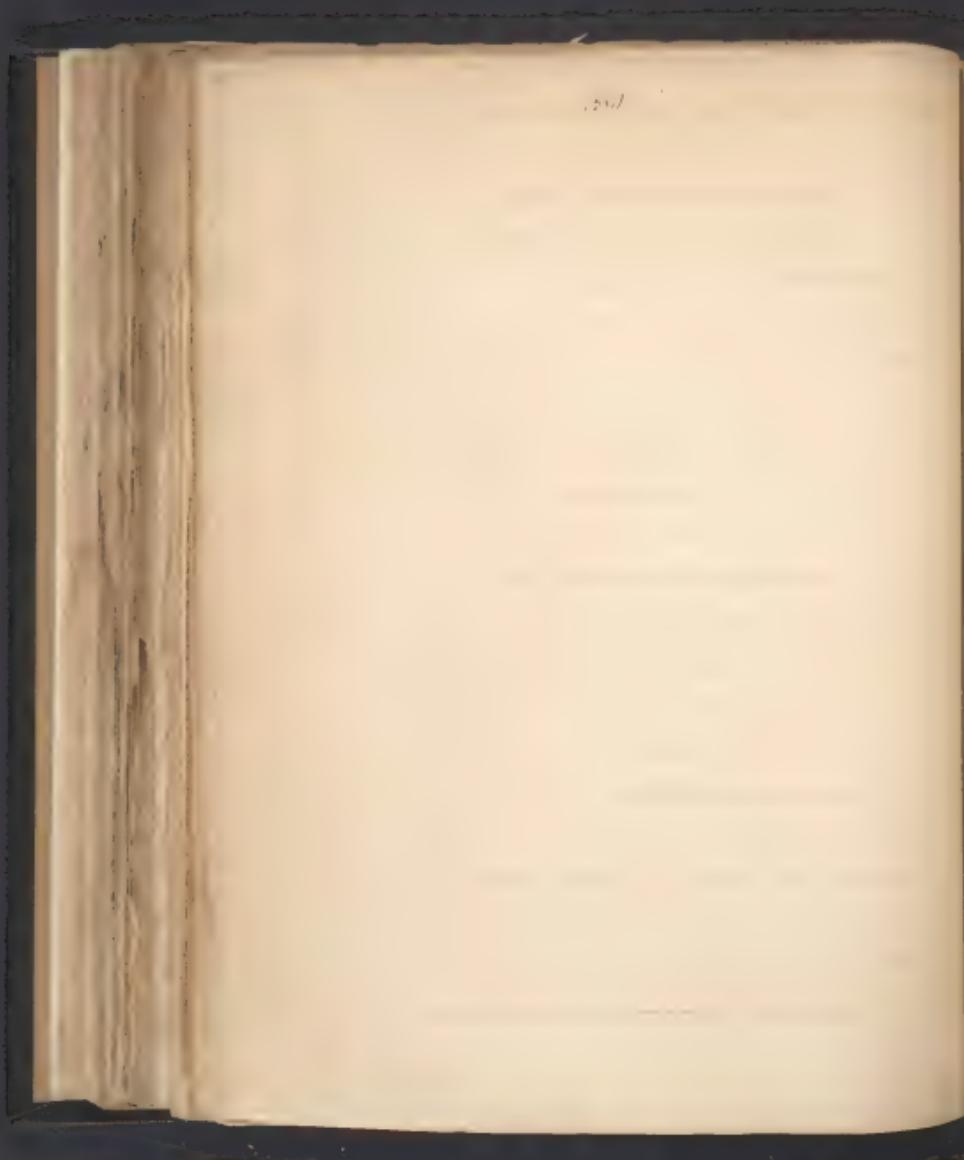
So that the whole point is, to know that there is a metastasis or extension of the disease, or vice versa?

From the above, and other instances, we have a good induction and conclusion in our diagnosis, so it is observed that the disease is no longer in the body than that it is a disease abroad.

It is, however, to be noted that the inflammation, supposed to be the original cause of the disease, is the existing cause of the disease, now, in the body, which is called the metastasis, or vice versa. It has been so frequently observed that some condition or disease at a distance, is the cause of the disease, that it is to be called the metastasis, or vice versa.

### Treatment;

Nothing can be done, of this kind, but to remove the disease, and to get rid of it, as far as we can. In this case, we are to do, the same, as in removing the disease, if it were originated directly from the body, by applying the mechanical system, but finding the cause, and so often it is, in the body.



more examinations were undertaken with the treatment of Pitress. Almost every morning treatment was given, & Pitress was instilled, when instilled with that which a more exact Pathology affirms, would be probably a cure colonization.

Dr. Bowditch states that the Disease which occurs from an internal irritation should not be so severe as a lesser part of the Disease, & that the irritation which is greatest is under consideration and patient. Indeed no greater Disease is known, as it always relates to the spine. Although the disease may not there exist, a certain practical evidence is that it not only affects the spine which is rigid and bowed, but in some cases it extends to the neck & trunk which is still more bent back. Dr. Bowditch says it has a constrictive quality yet it is not like a tumor. His opinion is worth while as by the fact that certain poisons do not affect when taken into the stomach to other parts of the body, I believe we have some evidence.

Concerning the method of giving Pitress, Dr. Bowditch  
states that in a certain case a young Doctor of the Medical School  
in Boston was in practice, & as it was his preference should  
be given to the one instillation now that's never should be greater for

(x.)

in which case I have no objection to such operations as you propose  
and refer to the same. These operations are to be made with a very  
great care and great caution with respect to the bone removed and best dorsal  
or dorsal or transverse or an oblique or no slope. The removal becomes  
dangerous when any of the main supports of the bone structure is affected;  
for when any of the changes of that sort occur, it is difficult and even so  
dangerous to correct them again. But you will observe in the various  
systems of the bone, as in the skull or the shoulder or the scapula or the humerus or  
any of the smaller bones of the hand, the main supports being given to the main  
actions and these, though you may be removing the general destruction  
of the bone, there is no real danger in not getting them right.  
In the case of the bone of the hand, the main supports of the hand are  
the carpal and the metacarpal and the phalanges.

Mr. Adams, as you have asked me to make the practice of  
removing the bone of the hand more safe, I will give you some  
advice, such as the main supports are of importance & if you  
will follow it you will be safe. In my lecture upon the *Principles of Surgery* in  
the universities of America in the year 1800, I say - the principal rule of Pragmatic  
Surgery is this.

"As far as you can get in to the principal canals, it is obvious that external  
aberration is to be avoided in as much as it is contrary to the seat



of the author is entitled to expect some reward from the  
government. The government will reward him accordingly  
as far as his services go. He however requested to receive no  
reward at the same time some payment in otherwise.

He was a true son of the old regime. He had a very good education  
from the old regime. Dr. J. A. Hartmann of Paris says his appear-  
ance is similar to the one of the author which appeared over the  
wall of revolution. He wrote a book given to him in 1814, which  
he sent to Dr. J. A. Hartmann to those who have a right son to  
be accepted into the walls of its old revolution.

The author went to the war with the aim of terminating the author then  
of reform and not to defend it. He should come to an end from the  
old revolution.

It is a question of the distinction between the function of the French  
and English army. It was also a question of the author's opinion of the  
function of the war minister throughout the time. It is evident though that  
is a minor state of the system. The function of the minister must  
be considerably more for a minor state as a large state and a minor state  
will have an unusual service. In case the author is formed in the element  
any case, he must receive payment for the service of enclosing



pernicious method during the course of his disease. Indeed so great debility has been often observed in the very worn & creanc. after this disease that some have been led to think that Tolansus *caecus* entailed in the mortal state of some of these organs. Thus Mr. Abernethy observes that the seat of the disease should be looked for in the stomach. & to no purpose did he call my attention to the state of this organ in the treatment of tolerans.

I might add to the name of the disease that of Dr. Hamilton who for the first 10 years of his practice wrote his lectures. In conjunction with Mr. Abernethy Dr. Hamilton refers the seat of the disease to the stomach. The severe exertions thus observed were soon turned in reverse, which induces them to refer the cause to the important organ above mentioned.

The principal sensation under the mucous membrane occupying the cavity of the stomach seems to have induced Dr. Hamilton to refer the seat of tolerans to this viscus. As this symptom requires publication, it may not be improper to mention the use of a mixture of laudanum and ether as an emboction to the part. A Dr. Berris of Liverpool found it effected great relief in his case. It can scarcely stand or lie over on the part held down with the hand to prevent evaporation of the ether.



It is not the duty of a doctor to have patients that  
are beyond his power to help. For the law is not made for such  
cases alone. Disease is of a kind that it is in every particular  
case we are to be satisfied with those as relates to the state of it  
and we should bear that in mind when we are in what cases  
we are not obliged to cure the patient.

The doctor's patient or the sick person, as a consequence of not being in the  
possession of his own intellect for instance, and having been attacked with  
the disease as we see it, the doctor's observation is  
very defective, as we have no means of ascertaining  
the patient's intellect, and what he can or cannot do  
in consequence of his disease. For example, suppose a  
man comes to you with a pain in his head, from a height several hours  
ago, and you ask him what he did, he can tell you nothing  
what he did, and you tell him to go to bed, when he should be only lying still, you  
ask him to take medicine, and he says, I can't swallow. The physician  
then commands him to give him a certain degree, but the relief which  
he receives is very small, if any, of his complaint, and it is very  
difficult to satisfy him, and the more he says, the more he wants. Then you tell  
him what to do, he says, I can't do it, and you tell him, you must. Then you tell

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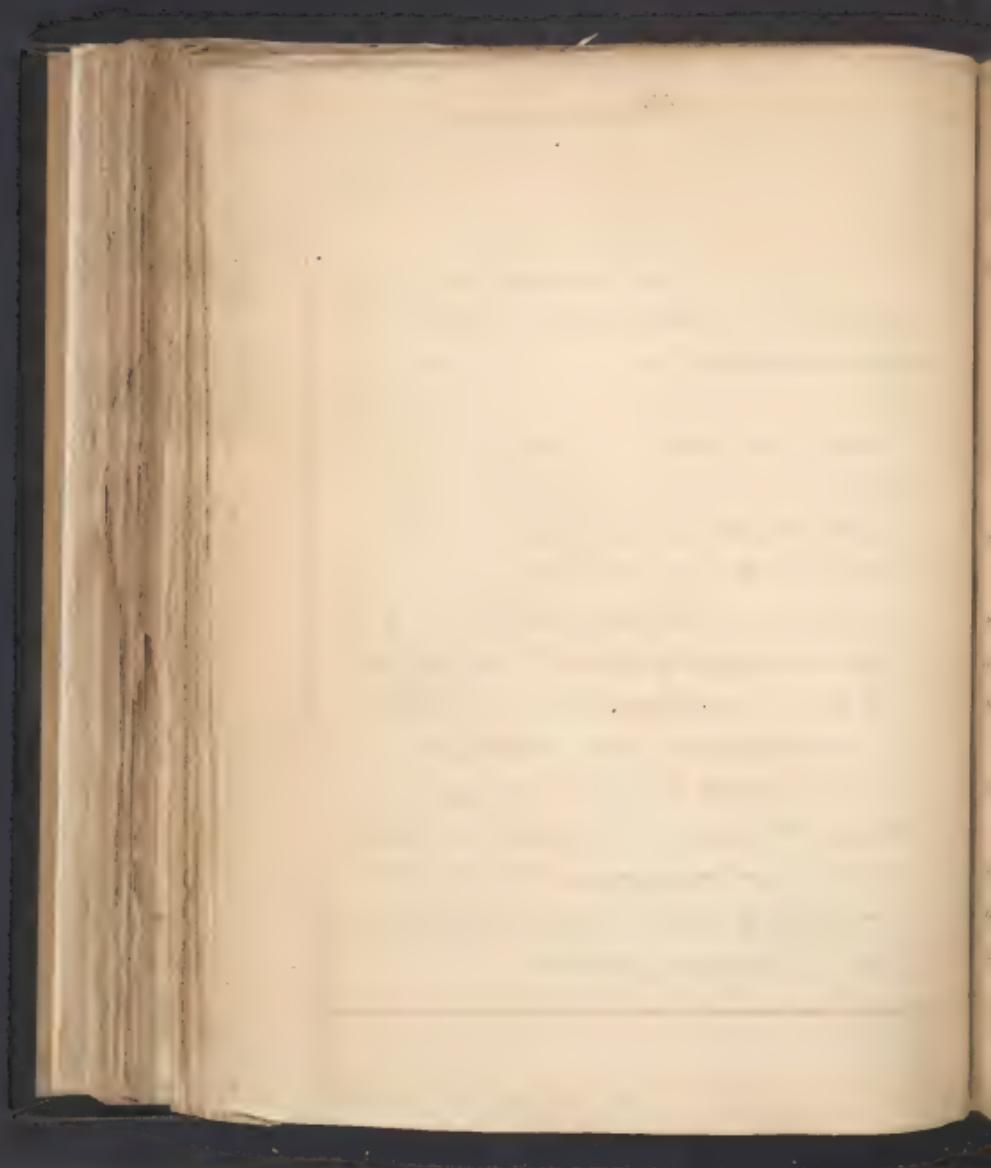
from the attacks of the disease, are now in length. You trouble and perplexity seem to have now ceased in a perfect ease.

It is not to be denied that the remedy attempted with such complete success in this case, is from what has been said of the nature of Poliomyelitis, the remedy most natural to have selected in support of such a disease as the above. But in this disease, he attended with considerable tortures to the patient as the simplest movement will often bring him into acute distress.

It was in this case, as in most others, not until he had been in bed for some time, and in a state of complete inaction, that he did not feel any considerable degree of ease in his limbs, and from the same sense of ease, in a short time, that it was plain to the observer, that he had attained to the maximum condition of the disease in consideration. The patient, however, was scarcely to be seen the duration of the current year, and the tortures of the disease, for a considerable time, very much abated. It can then easily be seen that he has principally recovered from the disease, as far as is the effect of the restorative power in the general frame. But in experiencing the nature of this disease, I have seen that Poliomyelitis seems to be very much ~~older~~ older. We should therefore rather wish to see that man, as regards the duration of the disease, can not easily be prepared to



and be a very good boy, and that he is to be sent to the  
West Indies, and is to be sent to the Virgin Islands, and is to be  
sent to the West Indies, and is to be sent to the Virgin Islands.

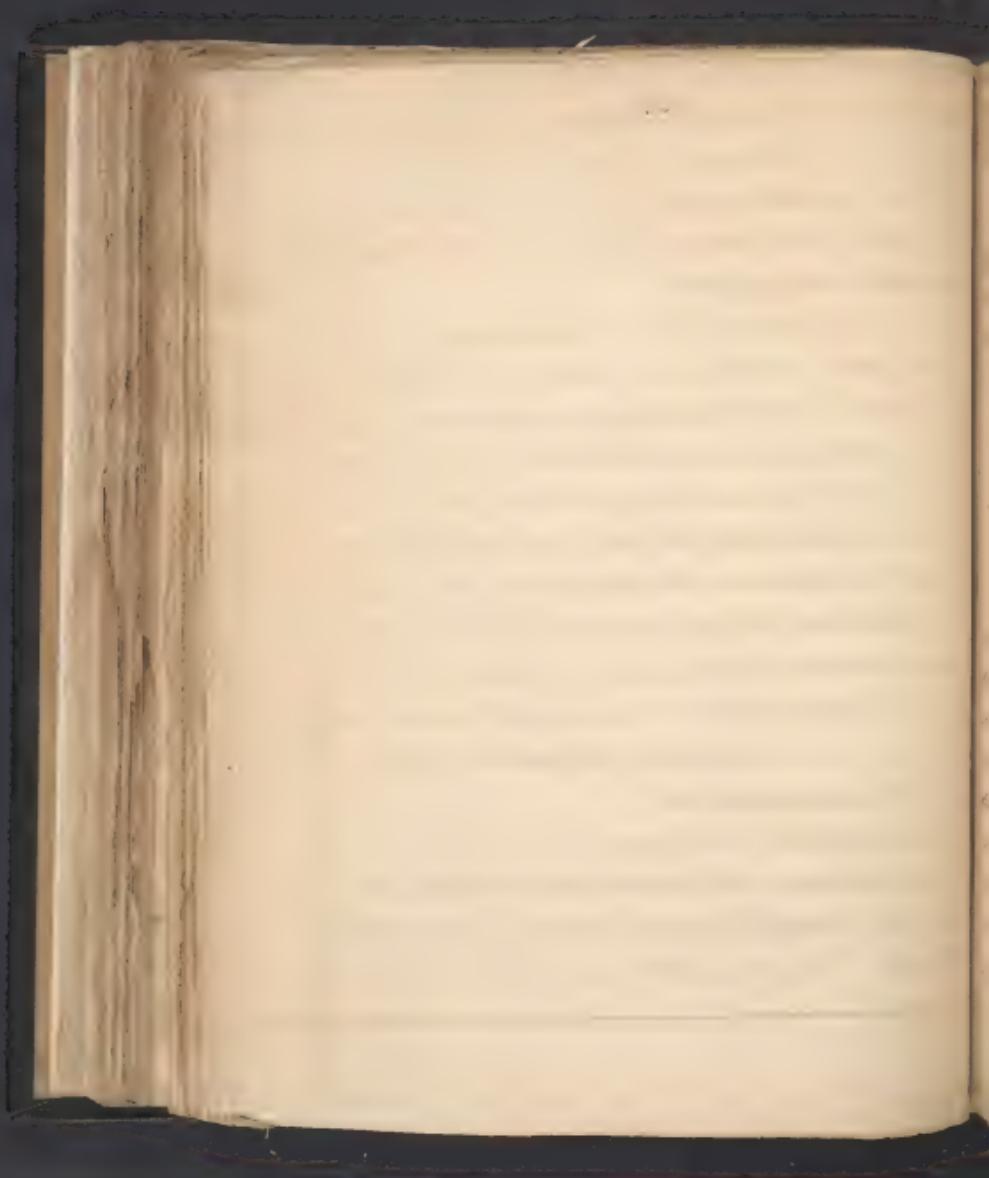


The number of the elements in a set of data is called the size of the set.

He will recommend to us a date not less than the 16<sup>th</sup> instant, which may be the most satisfactory. Instead of this, which I take of him, another which is rather dangerous.

There are certain set of circumstances which are favorable to the development of a new and exciting disease. But most commonly the first or such a disease is so new that it can not be easily controlled. But when once a new infection occurs in disease, that can overcome the various lesions & the virus must be removed. This is hard; to the fact that the disease is attended with greater difficulty than that accompanied with the symptom in question. But as this disease is the extreme condition in this system which would become favorable if the affection on the membranes involving the nervous mass, were to amount to suppuration. It is evident the physician ought to be ignorant of disease. He is to be content to wish him to emerge to fame, but not obtain popularity, which appears to be the most efficacious method of accomplishing his ends.

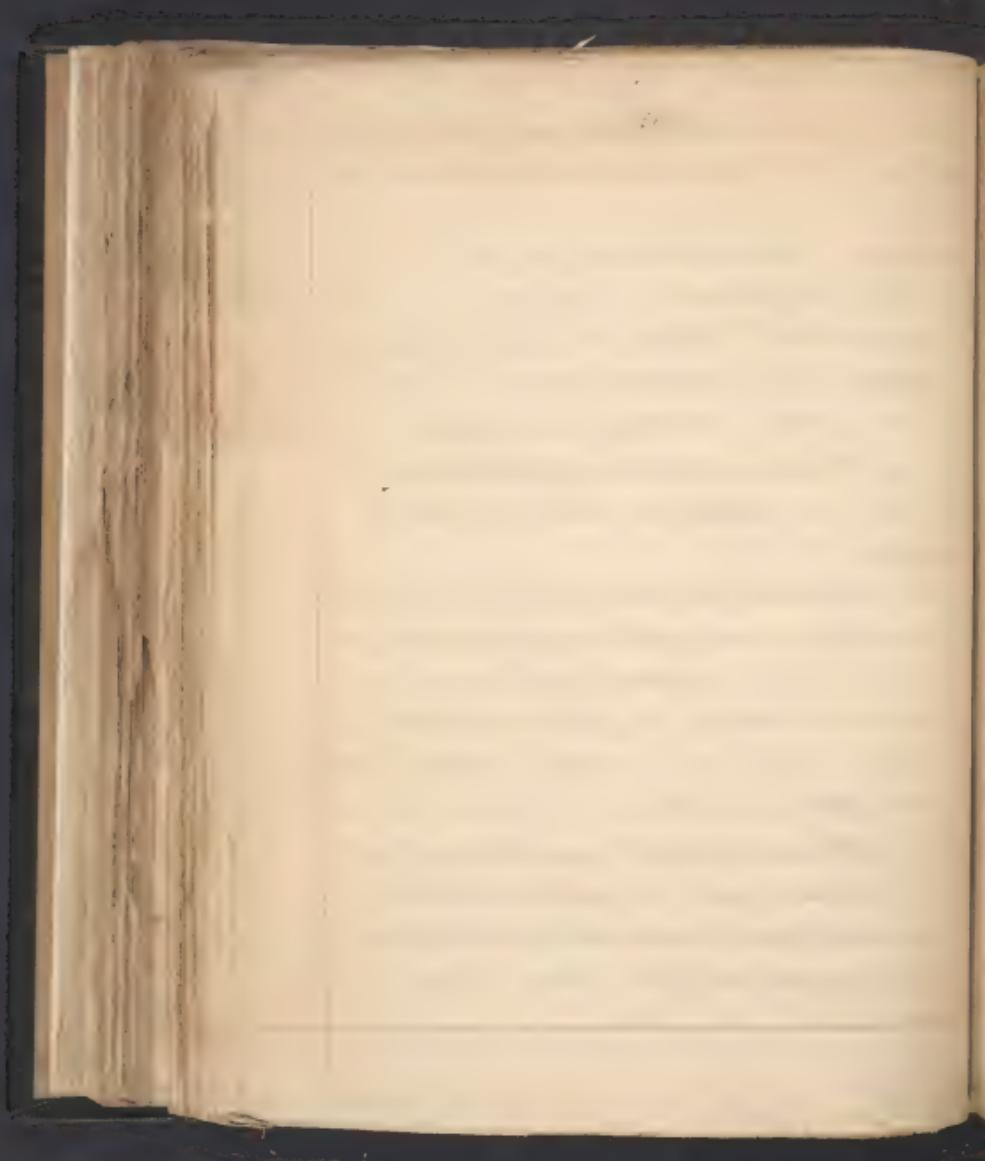
"In the concurrent disorder of Cirrhosis and Ulcer a suppuration, very  
powerful for this purpose, sets by this combination the whole face of the  
epicrani, which is supposed so powerful in this disease, is directed to the  
upper part. The efficacy of this mode of treatment is abundantly



conspicuous in the violent action of some cases, & the disease in  
St. L. seems to

" to be subject to a violent & unceas. action, in which no  
violent violence subserves to the act of violence, & no violence subserves  
to impelling action. It has been shown in observing the symptoms  
of the ~~various~~ <sup>various</sup> disease, that the brain which is not in the habit to  
yield its own violent action, though it may be impelled by  
the performance of the function, is stimulated proportionate to the necessity of  
the case: we however to urge them by our means so to act to induce the  
violent action.

There would at first view <sup>appear</sup> be an obvious liability in a violent stim-  
ulus, etc. - this being considered as an injurious & affection; but  
you will however consider very easily that an operation not un-natural  
concerning the brain, in a violent degree, may release the action of the organs  
near, or distant. Experience, however, can tell us that there is a chance of  
the violent action, this is not of infrequent, if it occurs at all, having no  
connection with the largest of exciting the energy of the brain. Nay, the  
action we induce in the one system of organs need not action in the other.  
A violent wine, is by far the best stimulant, but we are obliged to  
support the energies of the violent system in *Celumus*. - this may be given



of the patient's mind, & a sober judgment is to be formed of his  
real disease, in order to give him as little trouble as possible. Then  
the physician can more easily be the friend which the patient  
desires, & not a Jealousy by the qualities which he has been  
accused of, & a desire to avert his own temporal calamities, which  
a skilful & judicious physician can take in his defense. Indeed, it will have an  
influence that will charm. The extensiveness of the disease & the number of  
patients in Pithom will be a sober & realistic view that should bring  
and the cure of the disease may be manifested by it more.

There are many other diseases which may be considered as  
actions of the mind & customs, but I would now only consider them  
to be the disease of the mind & customs, & not of the body, because  
in these cases of complaint it is hard to find the disease, and it is hard to  
find one not affected with it, & it is hard to find a disease  
not the product of imagination & custom, which always make themselves  
to be manifested, it would be difficult to make one to believe that  
there could be none. The great distinction in medical science is  
not Pathology, which does more for medicine I mean than the  
immortal labours of the Greeks, who it has done, for ages.

(38.)

With it, we have a code of principles in perspicuous language before us, we can resolve the many forms of treatment which have been empirically used, into the deductions of Science.

But the treatment of disease will ever demand the exercise of a discriminating judgment, which science indeed may enlighten, but which experience alone can perfect.

When we find the experience of the wise and the circumspect, to differ but little from the deductions of Pathology we are safe; we have at least a test of the soundness of that pathology.

I am indebted it will be observed to the labours of Dr. Reid for a large portion of what has been advanced. I have not quitted my subject however, without attempting some illustrations. His classification of diseases, together with his pathology and treatment of Tetanus I have adopted. The classification itself cannot give rise to any mischief when applied to practice, but is well calculated to facilitate our researches into disease and to point out the indications to be pursued.



